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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,755	04/11/2001	Edward J. Mack SR.	55531 (45676)	2901
21874	7590	09/27/2006	EXAMINER	
EDWARDS & ANGELL, LLP			MCAVOY, ELLEN M	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	

1764

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,755

Applicant(s)

MACK ET AL.

Examiner

Ellen M. McAvoy

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 and 82-88 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-69, 82, 84 and 85 is/are allowed.
- 6) ☒ Claim(s) 1-19, 37-40, 83 and 86-88 is/are rejected.
- 7) ☒ Claim(s) 20-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19, 37-40, 83 and 86-88 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Barnes et al (5,001,184).

Applicants' arguments filed 02 March 2006 have been fully considered but they are not persuasive. As previously set forth, Barnes et al ["Barnes"] disclose reinforced composite materials having a thermoplastic matrix such as polyetheretherketone and at least 30% by volume of reinforcing filaments, at least 25% by volume being pitch based graphite fibers, also referred to by Barnes as carbon or graphite filaments derived from pitch. The examiner maintains the position that independent claim 1 appears to be anticipated; i.e., it is not clear how applicants' graphitized pitch-based carbon fibers differ from the fibers disclosed in Barnes. Although the thermal conductivity value is not given for the carbon fibers of Barnes, the examiner is of the position that since pitch-based carbon fibers are taught by applicants as suitable for the reinforcing fiber component, the thermal conductivity value is the same or

similar for the pitch-based graphite fibers taught by Barnes. Likewise, other numerical limitations in the depending claims not set forth in Barnes such as tensile strength, tensile modulus, coefficient of thermal expansion, density, wear factor and coefficient of friction are expected to be the same or similar since the components of the plastic article may be the same.

Applicants argue that:

“The Barnes patent discloses certain compositions which can include, *inter alia*, certain pitch based carbon fibers. Barnes provides that the materials can be used, e.g., for ‘aerospace applications’ (Barnes, Col. 1, lines 48-56). The Barnes patent discloses, e.g., in Example 1, the use of certain carbon fibers which are fed into heated rolls as a powdered resin is added. The resulting material includes continuous collimated carbon fibers in a resin base.

In contrast, the present invention is directed to an article having a bearing surface in which the distribution of the additive in the article can be homogeneous (see, e.g., new claim 87). The articles of the invention have improved tribological characteristics, and can be used in applications where improved wear characteristics are desirable, e.g., in sleeve bearings (see, e.g., new claim 88). Applicants respectfully urge that the disclosure of Barnes does not and cannot anticipate the pending claims.”

This is not deemed to be persuasive because the claimed article comprises two components, (1) a polymeric matrix material, and (2) a first additive that is a lubricious reinforcing graphitized pitch-based carbon fiber. As set forth above Barnes discloses reinforced composite materials containing the same two components. The claimed requirement that the article have a “bearing surface” does not distinguish over Barnes because it is not clear exactly what is meant by “bearing surface”. Applicants appear to be arguing limitations which are not in the above rejected claims such as the homogeneous distribution of the additive.

Allowable Subject Matter

Claims 20-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 41-69, 82, 84 and 85 are allowed over the prior art references of record.

The provisional rejection of claims 1-69 and 83-85 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 12, 14-16 of copending Application No. 09/917,199 made in the previous office action is withdrawn in view of the abandonment of Application No. 09/917,199.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

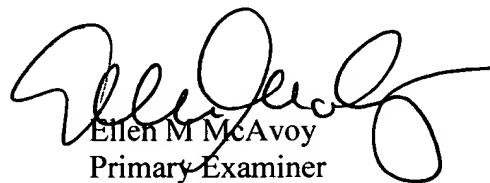
Art Unit: 1764

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ellen M. McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
September 18, 2006